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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 7794 (1984): Manual Portable Grease Guns [PGD 19:
Lubricating Equipments]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



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Indian Standard

SPECIFICATION FOR MANUAL PORTABLE GREASE GUNS

(First Revision)

1. Scope — Covers manually operated grease guns intended for use with grease having worked penetration of 220 or above at 25°C for general purpose applications.

2. Nomenclature — As given in Fig. 1, 2 and 3.

3. Types — Manual portable grease guns shall be of the following types:

- a) Push type (see Fig. 1),
- b) Lever type with screw-down follower (see Fig. 2), and
- c) Lever type with spring-loaded follower (see Fig. 3).

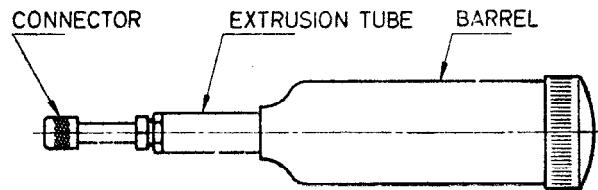


FIG. 1 PUSH TYPE GREASE GUN

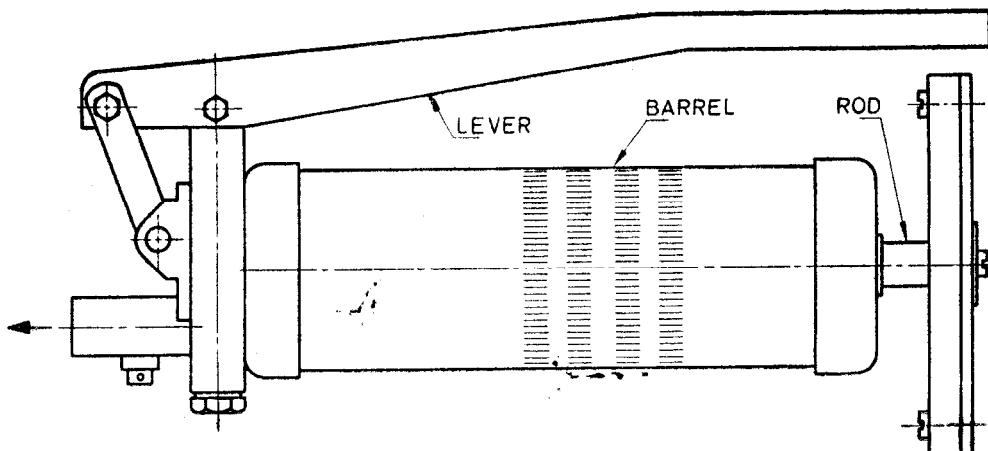


FIG. 2 LEVER TYPE GREASE GUN WITH SCREW-DOWN FOLLOWER

4. Material — The material used for grease guns shall be such as to withstand normal wear and handling when used with grease.

5. Capacity — The nominal capacity, discharge per stroke, overall length and operating discharge pressure shall be as given below:

Parameter	Push Type	Lever Type
Nominal capacity of the gun, cm ³	150	400
Discharge per stroke, cm ³	0.4	1.00
Maximum overall length in fully charged condition, mm	325	750
Operating/discharge pressure, Min, kgf/cm ²	200	300

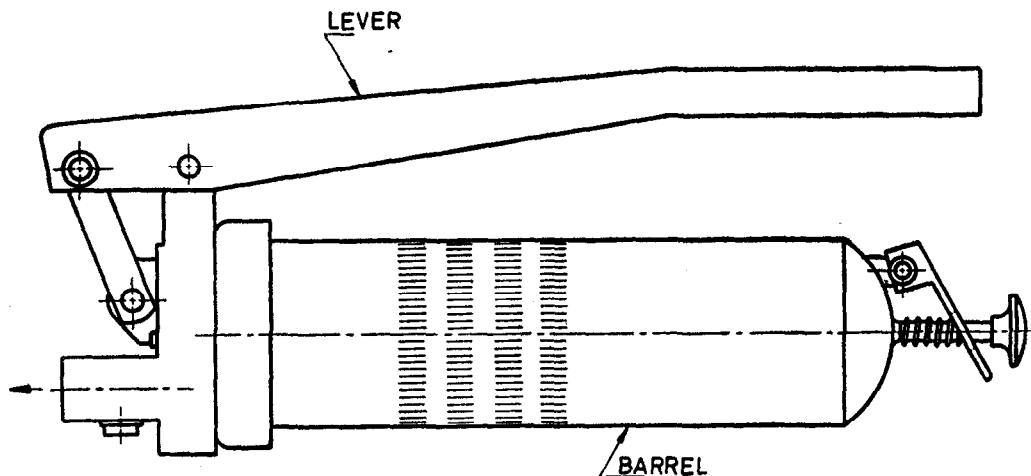


FIG. 3 LEVER TYPE GREASE GUN WITH SPRING-LOADED FOLLOWER

6. Design Features

6.1 Grease guns shall be robust in construction and shall be capable of feeding the grease nipples easily.

6.2 Grease guns shall be capable of being fed and charged easily with effective quantity of grease and may have a nipple for charging.

6.3 All packings shall be made from oil-resisting materials.

7. Designation — Grease guns shall be designated by the following:

- Type,
- Nominal capacity, and
- Number of this Indian Standard.

Example:

Grease gun of lever type with spring-loaded follower and nominal capacity 100 cm³ shall be designated as:

Lever Grease Gun Spring-Loaded 100 IS : 7794

8. Workmanship and Finish

8.1 The grease guns shall be finished smooth and shall be free from burrs, cracks and other manufacturing defects.

8.2 Grease guns shall be painted or plated.

9. Sampling

9.1 Unless otherwise agreed to between the buyer and the supplier, the sampling plan as given in Appendix A shall be followed. For further information reference may be made to IS : 2500 (Part 1)-1973 'Sampling inspection tables: Part 1 Inspection by attributes and by count of defects'.

10. Performance Tests — When tested on a test rig shown in Fig. 4, the volume of grease extruded per stroke at different operating pressures shall be as follows:

Operating Pressure kgf/cm ² gauge	Extrusion per Stroke	
	Lever Type cm ³	Push Type cm ³
0	1.00	0.4
100	0.97	0.39
200	0.87	0.35
300	0.64	0.25

Note — Before taking measurements, the test rig shall be primed with grease and continuous smooth discharge ensured at the outlet. The volumetric reading shall be the average for 10 strokes. There shall be no external leakage on the gun and at the various connections of the rig.

11. Endurance Test — The grease gun shall be operated for 3 500 operations on a test rig shown in Fig. 4. There shall not be any leakage at the end of these operations and the grease gun shall be serviceable.

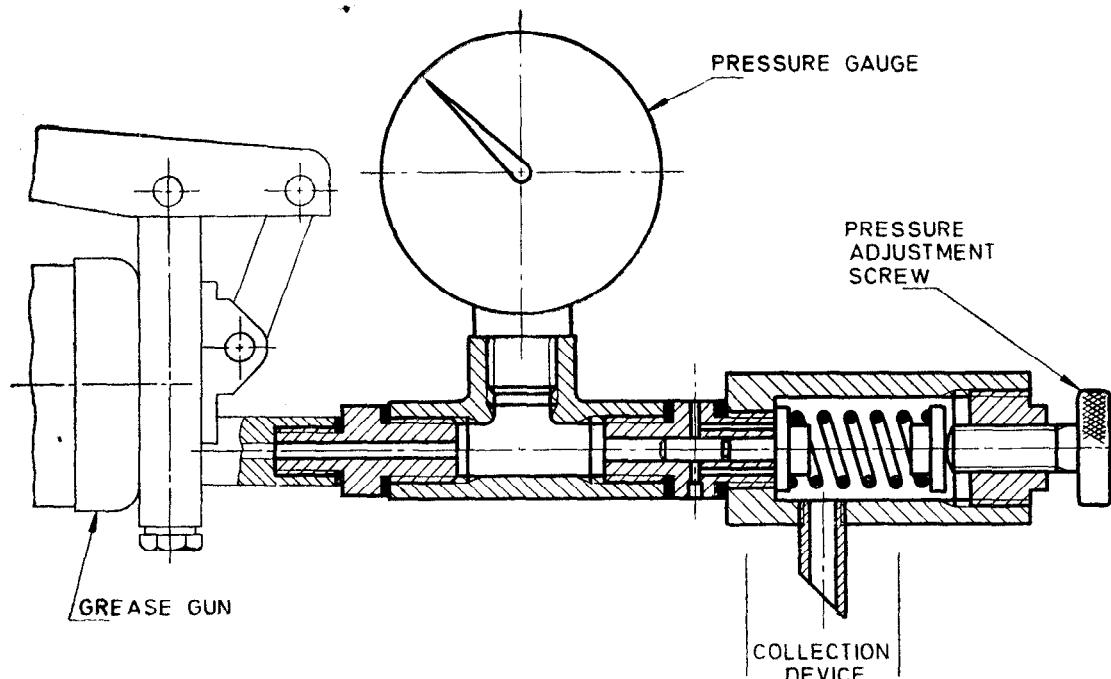


FIG. 4 GREASE GUN TEST RIG

12. Marking — The grease guns shall be marked with the nominal capacity and the manufacturer's name or trade-mark.

12.1 ISI Certification Marking — Details available with the Indian Standards Institution.

13. Packing — The grease guns shall be packed in accordance with the best prevalent trade practice or as agreed to between the purchaser and the supplier.

A P P E N D I X A

(Clause 9.1)

SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

A-1. Scale of Sampling

A-1.1 Lot — In any consignment all the grease guns of the same type and nominal size and manufactured from the same materials under essentially similar conditions of manufacture shall be grouped together to constitute a lot.

A-1.2 For ascertaining the conformity of the lot to the requirements of the standard, sample shall be selected and tested separately for each lot. The number of guns to be selected at random for this purpose shall be in accordance with col 1 and 2 of Table 1.

TABLE 1 SAMPLE SIZE AND CRITERIA FOR CONFORMITY
(Clauses A-1.2 and A-1.4)

Number of Guns in the Lot <i>N</i>	Sample Size <i>n</i>	Permissible No. of Defective Guns
(1)	(2)	(3)
Up to 100	8	0
101 „ 150	18	0
151 „ 300	20	0
301 „ 500	32	1
501 „ 1 000	50	2
1 001 „ 3 000	80	3
3 001 and above	125	5

A-1.3 The guns for the sample shall be selected at random from the lot and in order to ensure the randomness of selection, suitable random number tables shall be used. In case such tables are not available, the following procedure for selection may be adopted:

Starting from any gun in the lot count them in one order as 1, 2, 3, ..., up to r and so on, where r is the integral part of N/n (N being the lot size and n the sample size). Every r th gun thus counted shall be selected to constitute the sample.

A-1.4 Number of Tests and Criteria for Conformity — The guns selected in accordance with **A-1.2** and **A-1.3** shall be examined for capacity and dimensions requirements and tested for performance and endurance. The lot shall be considered as having satisfied the requirements of the specification, if the number of guns failing to meet the requirements of one or more of the characteristics, is less than or equal to the permissible number of defectives given in col 3 of Table 1.

EXPLANATORY NOTE

This standard covers the requirements of manually operated grease guns intended for use with grease having worked penetration of 220 or above at 25°C for general purpose applications.

Grease gun is a device used as a means of forcing grease through grease nipples fitted largely on automobiles, industrial and farm equipment, etc.

In preparation of this standard considerable assistance has been derived from JIS D 8002-1958 'Manual portable grease gun for automobiles' issued by the Japanese Industrial Standards Committee.